

WHAT IS CLAIMED IS:

1. A composition, comprising:
 - a C_n-Ab, wherein C_n is a fullerene or nanotube comprising n carbon atoms, and
- 5 Ab is a moiety comprising an antigen-binding site and is linked to the C_n.
2. The composition of claim 1, wherein the Ab is covalently linked to the C_n.
3. The composition of claim 1, wherein the C_n is substituted with one or more water-solubilizing groups.
- 10 4. The composition of claim 1, wherein the Ab comprises an antigen-binding site selected from ZME-018, SCFVMEL, dSCFVMEL, GD2, HuM195, herceptin, BACH 250, ML 3-9, C 6.5, or αMMP9.
- 15 5. The composition of claim 1, further comprising a pharmaceutically-acceptable carrier.
6. The composition of claim 1, further comprising a therapeutic molecule associated 20 with the C_n-Ab.
7. The composition of claim 6, wherein the therapeutic molecule is covalently bound to the C_n.
- 25 8. The composition of claim 6, wherein the C_n is substituted with a charged group and the therapeutic molecule is ionically associated with the polar group.
9. The composition of claim 6, wherein the therapeutic molecule is paclitaxel, doxorubicin, vincristine, or cisplatin.

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10. A method of treating a disease in a mammal, comprising:
 - administering to the mammal an effective amount of a composition comprising (i) a C_n-Ab, wherein C_n is a fullerene or nanotube comprising n carbon atoms, and Ab is a moiety comprising an antigen-binding site and is linked to the C_n and (ii) a pharmaceutically-acceptable carrier.
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11. The method of claim 10, wherein the Ab is covalently linked to the C_n.
12. The method of claim 10, the C_n is substituted with one or more water-solubilizing groups.
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13. The method of claim 10, wherein the Ab comprises an antigen-binding site selected from ZME-018, SCFVMEL, dSCFVMEL, GD2, HuM195, herceptin, BACH 250, ML 3-9, C 6.5, or αMMP9.
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14. The method of claim 10, wherein the disease is an oxidative stress disease.
15. The method of claim 10, wherein the composition is administered at a dosage of from about 0.001 mg C_n per kg body weight per day to about 1 g C_n per kg body weight per day.
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16. The method of claim 10, wherein the composition further comprises a therapeutic molecule associated with the C_n-Ab.
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17. The method of claim 16, wherein the therapeutic molecule is paclitaxel, doxorubicin, vincristine, or cisplatin.
18. The method of claim 16, wherein the composition is administered at a dosage of from about 0.001 mg therapeutic molecule per kg body weight per day to about 1 g therapeutic molecule per kg body weight per day.
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19. The method of claim 10, wherein the method further comprises administering an adjuvant to the mammal, wherein the adjuvant dissociates the therapeutic molecule from the C_n-Ab.

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20. A method for administering therapeutic molecules to a mammal, comprising:
administering to the mammal an effective amount of a composition comprising a nanometric liposome, wherein the therapeutic molecule is located on the surface of the liposome, between layers of the liposome, or entrapped within the liposome.

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